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SORTIE 8005.

Sortie 8005 which was flown on Sunday December 6th, has given us a further 100,000 square miles of Soviet real estate, or an area equivalent to twice the size of the United Kingdom. To achieve this figure, 9000 linear feet of film was exposed. The area covered gave us excellent photographic coverage of the important parts of the Volga River and plain. The flight covered large areas which had not been previously covered by photography and also gave us the chance to have another look at Kapustin Yar 27 months later and see what developments had taken place.

Although the weather was moor for marts of the flight, the met meanle were correct in their forcast that the weather would be clear in the areas in which we were interested.

At this functure we have done no more than scan the material, and have only been able to extract the most significant highlights. There is no doubt that there will be many more exciting and important features revealed when the more detailed interpretation is completed, and collateral intelligence is fed in.

CHART NUMBER O.

ROUTE AND DETAILS SHOWN.

(Mention Reaction)

OPERATIONAL HEXAGON SAM SITES

(S.A) ... (1.)

16 SAM sites on mission (Red Dots)

12 sites ringing KUYBYSHEV & LENIN HYDROFLECTRIC STATION & DAM.

5 sites - immediate operational capability

3 sites - construction complete

4 sites - under construction

SAM SUPPORT FACILITY NEAR KUYBYSHEV DAM

24 missiles on transporters

6 launchers

l large drive-thru building

I site near SARATOV - construction complete

3 sites partly ringing STALINGRAD and VOLGA RIVER DAM - all have operational capability

2 (Hard Site) prototypes at KYMTR

(KAPUSTIN YAR MISSILE TEST CENTER)

TOTALS - 16 SAM SITES, 1 Support Facility, 74 Missiles, 54 launchers

CHART NUMBER 1.

KARSHI SOUTHEAST ATRFIELD.

We were interested in this area because whenever there is tension in the Middle East, and even during the Hungarian crisis, Soviets moved tactical type aircraft onto this field. We also have had special intelligence which associated the latest types of fighter aircraft with this area.

Aircraft count on this photography was:

29 Probable BEAGLES.

24 FAGOT/FRESCO.

2 Possible CAB.

The aircraft was 20 miles away when this photograph was taken and illustrates the excellent quality of the photography. This is the first photograph we have had of this airfield and should be useful for target data.

CHART NUMBER 2.

KUYBYSHEV.

This is undoubtedly a very important area in the Soviet eyes as we have found 12 surface to air missile sites covering the area. It is an area which has always been associated with heavy bomber production and modification (No. 1 Plant) of Bears and Badgers (Plant 18). It is producing Cleats (TULL4) in plant 24. It is the second largest engine plant in U.S.S.R. and many large testing cells can be seen.

The latest assumption is that they are only going to produce a further 25 TU 114 and the Americans believe that this plant could well be used for missile production. It also shows intensive industrial areas, communications including a center with 38 lattice towers and three transmitter receiver buildings. Another center with 5 fishbone antennae, three single Rhombic antennae and other aerials. This may well be of great help to special intelligence.



CHART NUMBER 3.

KRASNAYA GLINKA.

You may remember that in 1946 many German scientists were sent to the U.S.S.R. and they were broken up into three groups, and sent to various aircraft establishments. Three such groups were sent here and were specialized in:

Missile Guidance.

Aero Engines.

Miscellaneous aircraft specialists.

Between 1950 and 52 the Germans were withdrawn from this area and since then it was largely an unknown. We now find that the plant has been extended and is active. Until detailed analysis reveals more information, this installation is going to be a big question mark in our minds.

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CHART NUMBER 4.

KURUMOCH.

This installation is a big unknown. A large storage area
measuring 10,500 feet by 2,600 feet
It is interesting to note the rows of light
poles which may be lightening arrestors. There is a security
fence, but no evidence of revetments or blast protection.

25X1



CHART NUMBER 5.

CHAPAYEVSK.

We know very little about this complex, but that	it has
been reported	
We find that there has been a large expansion in the previous (G X) cover in 1942.	plant since
The plant appears to be active. We know that the	plant 102
notice a storage area consisting of 38 revetted buildi herringbone pattern which indicates high explosive sto	ngs in

25X1

CHART MUNDER 6.

VOLSK.

This	photography	confirms	the	presence,	and	establishes

You will notice the troop areas, laboratory complex and horizontal and vertical grids. We find that there has been a great expansion since our previous cover (G X) in 1942. Photography shows current activity.

It is interesting to note that the navigation was so accurate that the aircraft had actually cut the target as you see from the cut on the film.

25X1

CHART NUMBER 7.

SARATOV/ENGELS.

You may recall that the Talent programme during the last $2\frac{1}{2}$ years has revealed only 7 BISON aircraft. It was anticipated that if we were going to find heavy aircraft they would be here. We now find 37 BISON aircraft.

You will notice two aircraft on the alert platform and the five weapon loading pits. Four of these pits are 65 feet by 10 feet, and one is 80 feet by 10 feet. This shows that they are thinking in terms of large weapons.

Another very interesting feature is the two storage areas,

has a strong security fence and an earth covered drive-through building. The other storage area is security-fenced but is non-revetted. The use of this is unknown, but could be associated with EW/CW.

The shadow thrown by the single Bison standing on the airfield reveals a flight refueling probe and with special optics this
can be seen on many others.

A/C Count on Board.

CHARP THORSE 8.

SARATOV.

Factory 292 thought to be producing new fighters. Airfield shows 25 FLASHLIGHTS (possible C type) allweather fighter.

The bearing plant could well be associated with electronic equipment. It may be of interest to note the large buildings adjacent to factory 292. Note too the high quality and help that snow gives to the interpreter.

CHART NUMBER 9.

STALINGRAD.

BEKETOVKA PLANT (91)

This is a possible producer of chemical warfare nerve agents, and also liquid oxygen.

The aircraft was 20-25 miles away when this photograph was taken. We should get much more from this material when it has been fully exploited.

CHART NUMBER 10. SURFACE TO AIR LANGER COMPLEX (SAM).

We had very poor oblique photography of this area in 1957.
8005 now provides excellent vertical cover enabling us to see much more.

Key to annotations.

- Al. Herringbone pattern (Moscow complex) previously used for R & D, now used for troop training. 40 missiles observed on pads.
- A2. Guidance radar (Y0 Y0) for herringbone pattern. Visible in 1957.
- Bl B2 B3. Possibly the initial R & D launching pads out of which was probably evolved the herringbone pattern. These pads now converted to new prototype systems which have not yet been seen operationally.
- B. R & D Little David site. Possibly the initial R & D for Little David types. Just above this site is a probable prototype Little David operational site.
- B5. Guidance radar for initial R & D launch pads.
- Cl C2. 7 possible non static type SAN sites used for troop training.
- C3. 2 hexagon type SAM sites utilized for troop training. In early construction in 1957.



CHART NUMBER 10.

PAGE 2

- C:. A large unoccupied camp area. Capacity for approx 2,000 troops. Tent spaces can be seen and counted.
- D1. A new SAM launch area consisting of two prototype sites each with 4 launch pads.
- D2. Possible guidance/instrumentation facility.
- E. Support facilities for SAM launch areas.
- F. Possible propellant and/or warhead storage and assembly area. The area is heavily secured and contains 2 buildings, 2 possibly revetted storage areas, one possibly revetted assembly area and one drive-through assembly-type building.

CHART MODER 11.

LAUNCH COMPLEX D ZONE 10.

- A. Launch area SOUTH uncompleted in 1957 now complete with minor changes at the launch pad.
- B. Launch area NORTH was in an early stage of construction in 1957, now still under construction with only minor additions.
- C. A new launch site which appears to be nearly completed. It is of interest, that it is road, and not rail served. This indicates that the Soviets are carrying out an active R & D programme investigating various ways of launching and methods of I.R.B.M. deployment.
- D. New road served launch area in early stage of construction.

CHART HIMSER 12.

VIADINIROVKA.

concerned with very special R & D work involving several different types of Soviet aircraft, air to ground missiles, air to air missiles and perhaps a category of vehicles somewhere between manned aircraft and guided missiles. Special intelligence provided us with reports of objects being airlifted from the airfield or perhaps being launched or fired from the area.

The new photography has again provided confirmation of a very wide variety of aircraft types, apparently used for some form of R & D activity. It is interesting to note that where we now see Fishpot/Fishbed aircraft, 1957 photography revealed an unidentified winged object which had all the characteristics of a thrust glide vehicle. Other indications from special intelligence tell us that a high priority is given to the handling of design elements and other research programmes.

All we can say at this stage is that Vladimirovka plays a very special rule in the Soviet R & D programme devoted not only to the improvement of present weapons systems but to the development of new and more advanced ideas.

CHART HOUSE 12.

PAGE 2

It is also of interest to note that the production section in Zone B has been expanded and that a large number of buildings are under construction.

- A. Zone 13, Airborne Missile Assembly and Loading Complex. Fishpot/Fishbed. Bear.
- B. Zone 14, Missile Production Complex.
- C. Vladimirovka Airfield
- D. Akhtuba Airfield

CHART NUMBER 13.

MARGINETTE YAR.

MISSILE TRAINING AREA.

Lura 18 w AstA Juratestrud Duoroktarbu sa As see s minarife perus	•
prepared on one of the launch sites. The missile is approximately	
55 feet long You will see	
that the missile has been erected into the firing position. Adjacen	ıt
are several vehicles including 2 possible liquid propellant tankers.	
People can be seen. The quality of this is so good, that although	
taken 14 miles away, it is hoped that enlargements of 50 to 60	
magnifications can be made. The dimensions of the missile are	
similar to those of the KOROLOV liquid propellant ballistic missile.	,
This is thought to have a range of 350 nautical miles.	

There are two other launch sites in the picture.

CHART NOCHER 14. KAPUSTIN YAR. ZONE 7. LAUNCH COMPLEX.

Since previous cover in 1957 the site has been expanded to include two new raised platforms. Each is 30 feet high and served by two ramps. The platforms are about 100 feet square with holes approx 20 feet in diameter positioned near the centre. The water table in this area is high, therefore if the Soviets are interested in captive flight testing, or in submarine based missile launching they be expected to use mounds similar to these for firing.

This could be one of the most interesting developments found at K.Y. and will require much more detailed examination before anyone is prepared to say what the Soviets are hopeing to achieve. The pits are unusual and are not duplicated elsewhere at K.Y., but appear to be completed.

CEART MAGNER 15.

KAPUSTIN YAR LAUNCH COMPLEX 9.

In previous photography we saw the road in the bottom left hand corner leading to two outer firing pads forming the Y. They have now added a third site in the centre which has two completed firing pads.

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FINAL SUMMARY.

- TO SUM UP, THIS SORTIE HAS GIVEN US AT PRESENT:

16 new B.A.G.Ed sites

Coverage of a major chemical proving ground.

An additional type II special weapons storage area for atomic weapons.

An additional type M special weapons storage area.

Cover of 31 sirfields.

A count of 1243 aircraft including 55 heavy bombers.

Communication centres.

)

A great number of unknowns.

attach to the R & D programme at Espustin Yar. Also the fact that they are now training large numbers of troops in the use of all types of missiles. We now have photography of over 40 S.A.G.W. sites, and on this sortic alone we have counted 74 missiles. This information could well have an influence on Bomber Commands target plans.

It also brings to light the fact that the Soviets are developing a significant capability in the EW/CW fields.

As far as special intelligence is concerned, the new communication centres we have found may well enable us to improve our understanding of Soviet intentions. This information is also invaluable for geodetic data and for map making for long range strategic planning.